WHAT IS CLAIMED IS:

1. A sintered permanent magnet having a composition comprising, by mass, 27-33.5% of R, which is at least one of rare earth elements including Y, 0.5-2% of B, 0.002-0.15% of N, 0.25% or less of O, 0.15% or less of C, and 0.001-0.05% of P, the balance being Fe, wherein it has a coercivity iHc of 1 MA/m or more.

2. The sintered permanent magnet according to claim 1, wherein P is 0.003-0.05% by mass.

3. The sintered permanent magnet according to claim 2, wherein P is 0.008-0.05% by mass.

4. The sintered permanent magnet according to claim 1, wherein part of Fe is substituted by at least one selected from the group consisting of 0-1% of Nb, 0.01-1% of Al, 0-5% of Co, 0.01-0.5% of Ga, and 0-1% of Cu, by mass.

5. The sintered permanent magnet according to claim 4, wherein Nb is 0.05-1% by mass.

6. The sintered permanent magnet according to claim 4, wherein Al is 0.01-0.3% by mass.

7. The sintered permanent magnet according to claim 4, wherein Co is 0.3-5% by mass.

8. The sintered permanent magnet according to claim 7, wherein Co is 0.3-4.5% by mass.

9. The sintered permanent magnet according to claim 4, wherein Ga is 0.03-0.4% by mass.

10. The sintered permanent magnet according to claim 4, wherein Cu is 0.01-1% by mass.

11. The sintered permanent magnet according to claim 10, wherein Cu is 0.01-0.3% by mass.

12. The sintered permanent magnet according to claim 1, wherein O is 0.05-0.25% by mass.

13. The sintered permanent magnet according to claim 1, wherein C is 0.01-0.15% by mass.

14. The sintered permanent magnet according to claim 1, wherein it is in the shape of a ring having an outer diameter of 10-100 mm, an inner diameter of 8-96 mm, and a height of 10-70 mm, with a plurality of magnetic poles axially extending on an outer circumferential surface.

15. The sintered permanent magnet according to claim 14, wherein a distribution of a surface magnetic flux density B_0 on magnetic pole in an axial direction of said ring is in a range of 92.5% or more of the maximum of B_0.

16. The sintered permanent magnet according to claim 15, wherein the variation of said surface magnetic flux density B_0 is within 5%.

17. The sintered permanent magnet according to claim 1, wherein said R is 27-32% by mass.

18. The sintered permanent magnet according to claim 1, wherein said R is more than 32% and 33.5% or less by mass.

19. A sintered permanent magnet having a composition comprising, by mass, more than 32% and 33.5% or less of R, which is at least one of rare earth elements including Y, 0.5-2% of B, more than 0.25% and 0.6% or less of O, 0.01-0.15% of C, 0.002-0.05% of N, and 0.001-0.05% of P, the balance being Fe, wherein it is in the shape of a ring having an outer diameter of 10-100 mm, an inner diameter of 8-96 mm, and a height of 10-70 mm, wherein it has magnetic anisotropy in a circumferential direction of the ring, and wherein a distribution of a surface magnetic flux density B_0 on magnetic pole in an axial direction of said ring is in a range of 92.5% or more of the maximum of B_0.

20. The sintered permanent magnet according to claim 19, wherein the variation of said surface magnetic flux density B_0 is within 5%.

21. A method for producing a sintered permanent magnet comprising the steps of (a) pulverizing a rare earth magnet material to fine powder, and recovering said fine powder directly in a mineral oil, a synthetic oil or their mixture to form a slurry, (b) injecting said slurry under pressure into a die cavity, in which said slurry is wet-molded in a magnetic field, (c) heating the resultant green body under reduced pressure to remove said mineral oil, said synthetic oil or their mixture from said green body, and (d) sintering said green body in vacuum, wherein an axial direction of an aperture open in a cavity of said die for injecting said slurry under pressure is deviated from a center of a center core in said die.

22. The method for producing a sintered permanent magnet according to claim 21, wherein the oxygen content of said fine powder is more than 0.25% and 0.6% or less by mass.

23. A method for producing a sintered permanent magnet comprising the steps of (a) pulverizing a rare earth magnet material to fine powder, and recovering said fine powder directly in a mineral oil, a synthetic oil or their mixture to form a slurry, (b) injecting said slurry under pressure into a die cavity, in which said slurry is wet-molded in a magnetic field, (c) heating the resultant green body under reduced pressure to remove said mineral oil, said synthetic oil or their mixture from said green body, and (d) sintering said green body in vacuum, wherein said mineral oil, said synthetic oil or their mixture is mixed with sodium hypophosphite as a fluidity-improving agent.

24. A method for producing a sintered permanent magnet comprising the steps of (a) pulverizing a rare earth magnet material to fine powder, and recovering said fine powder directly in a mineral oil, a synthetic oil or their

mixture to form a slurry, (b) injecting said slurry under pressure into a die cavity, in which said slurry is wet-molded in a magnetic field, (c) heating the resultant green body under reduced pressure to remove said mineral oil, said synthetic oil or their mixture from said green body, and (d) sintering said green body in vacuum, wherein an axial direction of an aperture open in a cavity of said die for injecting said slurry under pressure is deviated from a center of a center core in said die, and wherein said mineral oil, said synthetic oil or their mixture is mixed with sodium hypophosphite as a fluidity-improving agent.

25. The method according to claim 23, wherein sodium hypophosphite is added in the form of a solution in glycerin or ethanol.